



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/047,327 | 01/14/2002 | Durga P. Satapathy | 1441 | 9579 |
| 21396 | 7590 | 04/25/2006 | EXAMINER | |
| Sprint 6391 SPRINT PARKWAY KSOPHT0101-Z2100 OVERLAND PARK, KS 66251-2100 | | | LIN, WEN TAI | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2154 | |

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

c

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/047,327 | | SATAPATHY ET AL. | |
| | Examiner | | Art Unit | |
| | Wen-Tai Lin | | 2154 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 76-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 76-89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 76 - 89 are presented for examination.
2. Claim 77 is objected to because it depends on a canceled claim (claim 1). Since "1" appears to be a typo of "76", the same is assumed in this office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 76-89 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, the teaching regarding the access device used at the customer premises is not specific enough to enable a person skilled in the art to make and use the invention. For example, the description about the access device in paragraphs 24-

35 appears to be merely a list of promises without detailing the steps of making such an access device. According to paragraph 24, the access device is able to interface to communications based on access technologies such as "xDSL, including asymmetric digital subscriber line (ADSL), single line DSL (SDSL), high bit-rate DSL (HDSL-2), and very high data rate DSL (VDSL), cable television (CATV), multipoint multichannel distribution service (MMDS), local multipoint distribution system (LMDS), personal communication service (PCS), satellite links, internet protocol (IP), asynchronous transfer mode (ATM), optical protocols, other wireless technologies, other wireline technologies, other analog technologies, and/or digital technologies."

Further, the device is said "can be configured to emulate multiple access technologies, upstream and/or downstream, including signal formats, frame formats, and access protocols. For example, the access device 104 can be configured to emulate multiple signal formats and modulations, such as quadrature amplitude modulation (QAM), quaternary phase shift keying (QPSK), orthogonal frequency division multiplexing (OFDM), carrierless amplitude and phase modulation (CAP), and other modulation and signal formatting." [see paragraph 26]. Moreover, the access device 104 can be configured for multiple frame formats. For example, the access device 104 can be configured to format frames for communications using IP, ATM, high level data link control (HDLC), ethernet, synchronous optical network (SONET), digital signal level zero (DSO), and others.

In addition, the access device is said "can be configured to format multiple access protocols. For example, the access device 104 can be configured to format

Art Unit: 2154

communications for xDSL, wide area network (WAN), local area network (LAN), code division multiplex access (CDMA), time division multiplex access (TDMA), MMDS, LMDS, PCS, time division duplex (TDD), frequency division duplex (FDD), Bluetooth, and others.”

As another example, at paragraph 33 the access device is said to “may comprise a combination of one or more of a field programmable gate array (FPGA), an application specific integrated circuit (ASIC), and a digital signal processor (DSP) and can be configured via software to emulate a variety of access technologies, modulation schemes, standards, and protocols. The access device 104 provides a variety of interfaces for these access technologies. For example, interfaces may include ADSL, SDSL, HDSL-2, VDSL, CATV, MMDS, LMDS, PCS, and satellite links. Supported protocols and standards may include IEEE 802.11a, IEEE 802.11b, IEEE 802.16, IEEE 802.16a, IEEE 802.16b, IEEE 802.3, ETSI HIPERMAN, Bluetooth, simple workflow access protocol (SWAP), home phoneline networking alliance (HomePNA), data over cable service interface specifications (DOCSIS), and others.”

While it is meant to be a powerful device in describing the functionalities of the access device, the implementation details are not given in a manner to enable a person skilled in the art to make and use the invention. As such, it raises a doubt that the inventor(s) had possession of the claimed access device at the time the application was filed.

4. The text of those sections of Title 35, USC code not included in this action can be found in the prior Office Action.

Claim Rejections - 35 USC § 102

5. Claims 76-81 and 83-88 are rejected under 35 U.S.C. 102(a)(e)(b) as being anticipated by Edson [U.S. 6526581].

6. As to claims 76-78, Edson teaches the invention as claimed including: a communication system comprising:

a premises device [e.g., any of 31-43 in Fig.1] located on a customer premises and configured to transmit a plurality of communications for a plurality of services to a service provider network using a plurality of access technologies [e.g., Abstract; Fig.1]; and

an access device [e.g., 13, Fig.1] located at the customer premises and configured to receive first communications for a first service using a first access technology, determine if the first access technology is acceptable for the first service, transfer the first communications to the service provider network using the first access technology if the first access technology is acceptable for the first service, and determine a second access technology different from the first access technology and transfer the first communications to the service provider using the second access technology if the first access technology is not acceptable for the first service [e.g.,

Art Unit: 2154

col.5, line 36- col.6 line 56; col.3, line 60 – col.4, line 15; col.6 line 57 – col.7, line 9; note that the selection about acceptable access technology is built into the internal programming of Edson's router].

7. As to claim 79, Edson further teaches that the first access technology comprises a cable access technology [e.g., 17, Fig.2].

8. As to claim 80, Edson further teaches that the second access technology comprises a wireless access technology [e.g., col.7, lines 10-15].

9. As to claim 81, Edson further teaches that the third access technology comprises a digital subscriber line (DSL) access technology [e.g., 15, Fig.2].

10. As to claims 83-88, since the features of these claims can also be found in claims 76-81, they are rejected for the same reasons set forth in the rejection of claims 76-81 above.

Claim Rejections - 35 USC § 103

11. Claim 82 is rejected under 35 U.S.C. 103(a) as being unpatentable over Edson [U.S. 6526581], as applied to claims 76-81 and 83-88 above.

12. As to claims 82 and 89, Edson teaches that the selection of external link is based on internal programming and is on a best available basis for each application [col.6, line 57 – col.7, line 9].

13. Edson is silent about basing acceptability on the type of service. However, it is obvious to one of ordinary skill in the art that type of service may be associated with predetermined access technology and having the selection criterion built into the router's internal programming in Edson's system because in reality different service types may take different preferred communication links (or access technologies). For example, accessing TV program through cable modem may be placed as a preferred choice, while DSL channel may be placed as a secondary choice when the cable traffic is momentarily congested.

Conclusion

Examiner note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part

Art Unit: 2154

of the claimed invention, as well as the contest of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wen-Tai Lin whose telephone number is (571)272-3969. The examiner can normally be reached on Monday-Friday(8:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:


(571) 273-8300 for official communications; and

(571) 273-3969 for status inquires draft communication.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wen-Tai Lin

April 20, 2006


4/20/06